

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently amended) A blood treatment unit comprising
 - a blood treatment device that is part of an extracorporeal blood circulatory system,
 - actuators in at least one of the extracorporeal blood circulatory system and another fluid circulatory system,
 - a control unit for controlling the actuators, and
 - a display and input unit including a touch screen connected to the control unit,
 - the display and input unit including a plurality of mode means selectable to influence operation of a hemodialysis treatment that show various time modes of a blood treatment on the touch screen, the mode means being selectable by an operator via the touch screen and being arranged with respect to one another in order of their occurrence in time, and including at least one blood treatment preparation means, one blood treatment means, and one blood treatment after-preparation means, and
 - the control unit being configured to (i) identify the respectively running time mode and to instruct the display and input unit to show the corresponding mode means selected from

other mode means, by showing the other mode means in a first type of symbol and the selected mode means in a second type of symbol,

and (ii) establish an end of at least one of the time modes in order to automatically initiate a beginning of a subsequent time mode and to communicate the initiation of the time mode to the display and input unit for changing the representation of the selected mode means.

2-3. (Canceled)

4. (Previously presented) The blood treatment unit according to claim 1, wherein the blood treatment means on the touch screen has a larger area than the blood treatment preparation means and the blood treatment after-preparation means.

5. (Previously presented) The blood treatment unit according to claim 1, wherein the mode means are represented as a cell at one edge of the touch screen and a remaining area of the touch screen represents at least one of other output means and input means.

6. (Previously presented) The blood treatment unit according to claim 1, wherein the touch screen has a display area on which the display and input unit represents at least one of an output means and an input means depending on the time mode.

7. (Previously presented) The blood treatment unit according to claim 1, wherein the blood treatment device is a haemodialysis device.

8. (Previously presented) The blood treatment unit according to claim 7, wherein the at least one blood treatment preparation means includes mode means each for a blood system mode and a preparation mode.

9. (Previously presented) The blood treatment unit according to claim 7, wherein the at least one blood after-preparation means includes mode means each for a re-infusion mode and a purification mode.

10. (Previously presented) The blood treatment unit according to claim 1, wherein the control unit instructs the display and input unit to represent individual mode means in a third type of symbol according to the running time mode and to deactivate an input function associated therewith.

11. (Previously presented) The blood treatment unit according to claim 1, wherein the display and input unit displays the mode means in all of the time modes at a same point of the touch screen.

12. (Previously presented) The blood treatment unit according to claim 1, further comprising a plurality of sensors, and wherein the control unit evaluates measured values of the sensors in order to determine the end of a time mode.

13. (Previously presented) The blood treatment unit according to claim 12, wherein the sensors include at least one of a blood detector and an air detector in the extracorporeal circulatory system.

14. (Previously presented) The blood treatment unit according to claim 12, wherein the sensors include a detector to determine the presence of correctly mounted components of the extracorporeal circulatory system.

15. (Previously presented) The blood treatment unit according to claim 1, wherein the control unit determines a quantity of fluid conveyed by a controlled pump at a certain time in order to use the quantity value to determine the end of a time mode.

16. (Previously presented) A blood treatment unit comprising:
a blood treatment device that is part of an extracorporeal blood circulatory system;

a plurality of actuators in at least one of the extracorporeal blood circulatory system and another fluid circulatory system;

a control unit to control the actuators; and

a display and input unit having a touch screen for input, the display and input unit being in communication with the control unit,

the display and input unit including a plurality of mode touch screen areas that display modes of the blood treatment on the touch screen, the mode touch screen areas being selectable by an operator and being arranged sequentially on the touch screen in order of their occurrence in time during the blood treatment, and including at least one of the mode touch screen areas for each of a blood treatment preparation mode, a blood treatment mode, and blood treatment post-preparation mode, and

the control unit being configured to

- (i) identify which of the modes is operating and to instruct the display and input unit to display on the touch screen the corresponding mode touch screen area, the display and input unit showing the operating mode by a first type of symbol and showing non-operating modes by a second type of symbol, and
- (ii) establish an end of at least one of the modes in order to automatically initiate a beginning of a subsequent mode and to communicate the initiation of the

subsequent mode to the display and input unit for
changing the representation of the operating mode.

17. (Previously presented) The blood treatment unit according to claim 16, wherein the mode touch screen areas are configured as a cell at one edge of the touch screen, and a remaining area of the touch screen includes at least one of output touch screen areas and input touch screen areas associated with the blood treatment.

18. (Previously presented) The blood treatment unit according to claim 16, wherein the touch screen area for the blood treatment preparation mode includes a touch screen area for each of a blood system mode and a preparation mode, and the touch screen area for the blood post-preparation mode includes a touch screen area for each of a re-infusion mode and a purification mode.

19. (Currently amended) A blood treatment unit comprising
a blood treatment device that is part of an extracorporeal blood circulatory system,
actuators in at least one of the extracorporeal blood circulatory system and another fluid circulatory system,
a control unit for controlling the actuators, and
a display and input unit including a touch screen connected to the control unit,

the display and input unit including a plurality of mode means selectable to influence operation of a hemodialysis treatment that show various time modes of a blood treatment on the touch screen, the mode means being selectable by an operator via the touch screen and being arranged with respect to one another in order of their occurrence in time, and including at least one blood treatment preparation means, one blood treatment means, and one blood treatment after-preparation means, the individual mode means being permanently visible in all views, and

the control unit being configured to (i) identify the respectively running time mode and to instruct the display and input unit to show the corresponding mode means selected from other mode means, by showing the other mode means in a first type of symbol and the selected mode means in a second type of symbol,

and (ii) establish an end of at least one of the time modes in order to automatically initiate a beginning of a subsequent time mode and to communicate the initiation of the time mode to the display and input unit for changing the representation of the selected mode means.

20. (Previously presented) A blood treatment unit comprising:

a blood treatment device that is part of an extracorporeal blood circulatory system;

a plurality of actuators in at least one of the extracorporeal blood circulatory system and another fluid circulatory system;

a control unit to control the actuators; and

a display and input unit having a touch screen for input, the display and input unit being in communication with the control unit,

the display and input unit including a plurality of mode touch screen areas that display modes of the blood treatment on the touch screen, the mode touch screen areas being selectable by an operator and being arranged sequentially on the touch screen in order of their occurrence in time during the blood treatment, and including at least one of the mode touch screen areas for each of a blood treatment preparation mode, a blood treatment mode, and blood treatment post-preparation mode, the individual mode touch screen areas being permanently visible in all views of the mode touch screen areas regardless of which of the blood treatment modes is in operation, and

the control unit being configured to

- (i) identify which of the modes is operating and to instruct the display and input unit to display on the touch screen the corresponding mode touch screen area, the display and input unit showing the operating mode by a first type of symbol and showing non-operating modes by a second type of symbol, and

- (ii) establish an end of at least one of the modes in order to automatically initiate a beginning of a subsequent mode and to communicate the initiation of the subsequent mode to the display and input unit for changing the representation of the operating mode.